

	Middle Years Programme	Form F3.1
	Moderation coversheet: Subjects	

Please complete a copy of this form for **each** folder of work submitted for moderation.

Please ensure that the material being submitted for moderation conforms to the requirements set out in the relevant subject group guide. All the criteria **must be applied twice** within the folder accompanying this form, unless stated otherwise in the subject guide.

School name: VICTORIAL SHANGHAI ACADEMY School code: 2634

MATHS

Student's name/number: Ryan Casberg Subject: (STANDARD)

The student's work is (please mark box):

☐ comparatively good ☒ average ☐ comparatively weak

Nature and title of assessment task		Criteria					
		A	B	C	D	E	F
1. Test	Teacher	5		4			
	Moderator						
2. The Bench	Teacher	4		5	3		
	Moderator						
3. The Company Report	Teacher		5		5		
	Moderator						
4. A Trig Identity	Teacher		2				
	Moderator						
5.	Teacher						
	Moderator						
6.	Teacher						
	Moderator						

Please use the reverse of this form or separate sheets to identify the conditions under which each piece of work was done (project, classroom test, end-of-term examination, and so on), the amount of support provided, any special circumstances, and general/specific information on the student. Provide any information that may assist the moderators in determining how the criteria were applied.

Name of teacher: Daniel Slosberg

Signature of teacher:  Date: March 22, 2013

Names of teachers involved in internal standardization for this subject:

Bonnie Luk (MYP 4 & 5), Daniel Slosberg (MYP 5), Yush Yuen (MYP 4)

Teacher's Comments:

Task	Criterion	General remarks
Test	A - 5	The student is able to solve most of the simple, complex and challenging questions. The student is able to solve questions 7a, b, c which are supposed to be some simple questions to guide the student through the unfamiliar part of the paper.
	C - 4	Overall, works are presented clearly, especially on the question 5a on the proofs.
The Bench	A - 4	Ryan has two lines and a cubic equation in his bench. The cubic equation has a compound transformation which is a reflection and a vertical compression-- neither of which are explained particularly well on page 8. He does explain the rotation (really a reflection over $y=x$, but this was unfamiliar to the students and does appear to be a rotation), reflection, and stretch correctly (although the shift is incorrectly explained as horizontal when it is in fact vertical) on page 7. He also experiments with an unfamiliar function (ellipse) on the top of page 7. While his deductions were <u>generally appropriate</u> throughout, his final product was not particularly challenging especially considering the lack of transformation based explanation of the creation of his cubic.
	C - 5	Ryan's explanations are <u>clear</u> and (almost always) <u>logical</u> , although <u>not always complete</u> . He moves <u>effectively</u> between the following forms of representation: sketches to tables to graphs to equations with ease. He shows <u>good use</u> of mathematical language and forms of representation most of the time.
	D - 3	On page 3, Ryan sketches both a human and his initial bench design. This shows a real world connection to his work, especially as the human torso and bench back are the same length. Ryan calculates percentage error to specify his degree of accuracy on page 8 which places him in the 3-4 box. The reflection section on the bottom of page 9 did not add much.

Task	Criterion	General remarks
The Company Report	B - 5	<p>On page 19, Ryan <u>suggests a general rule</u> ($2.1 \times 1.618^{(n-1)}$ is clearly his intent from the heading of his table, but he neglects the exponent in calculating values). On page 20 he shows his initial prediction (with an error in the 2007 point) and goes on in the graph on page 21 (mistakenly labeled "actual data") to modify his <u>general rule</u> to take into account the financial tsunami.</p> <p>He has, therefore, <u>selected and applied a mathematical problem solving technique</u> (geometric sequence/exponential equation) with some errors to <u>recognize a pattern</u> and <u>suggest it as a general rule</u>. He then modifies his <u>general rule</u> with clearly stated real life reasons. We felt, after quite a bit of discussion at the standardization meeting (this paper came into standardization with a 3 and an 8), that this was enough to fill the level 3-4 box.</p> <p>While he has tested his general rule on page 21, and in fact found that his numbers were reasonably close to Bank of America's actual numbers (actual numbers are found on page 24) (<u>showing conclusions consistent with findings</u>), he misses several key features including an error in his formula on page 19 which shows clearly on the graph on page 20 (<u>showing conclusions inconsistent with findings</u>), so we felt he earned a level 5 but did not earn a level 6, despite the amount of justification which was given for his modified rule (which, it was decided, should be rewarded in criterion D instead of B in this case).</p>
	D - 5	<p>Ryan talks about his analysis saying that Bank of America is a risky company in which an investor could lose a lot of money on page 23. He attempts to calculate degree of accuracy using a percentage error but does so incorrectly on page 24. He <u>suggests further improvements</u> on page 25. In addition, he <u>critically explains why his modified results make sense</u> on page 21 (although it would be more convincing with the actual numbers he was comparing them to on the same page--they can be found on page 24), and provides a <u>detailed explanation of the importance of the financial tsunami</u> on page 21. While his percentage error is incorrect on page 24, he <u>correctly specifies his degree of accuracy</u> as being within 0.5 billion on page 21. At the top of page 21, he <u>critically explains why his graph on page 20 does not make sense in the context of the problem</u> and on the right hand side of the page he <u>explains the improvements he made</u> to come up with the improved graph on page 21.</p>

Task	Criterion	General remarks
A Trig Identity	B - 2	Although Ryan does test but not prove his general rule, and although his rule is specified clearly, it was felt that it was <u>too simple</u> to be awarded more than a level 2.